

GRIDIRON! The Football Simulator

We have created this manual with the knowledge that many of you will want to play first and read later. While we can understand your desire to "dive right in", this manual is an integral part of your GRIDIRON! simulator and we urge you to give it a thorough reading. This is the only way that you will be able to capture the full excitement and potential of GRIDIRON!. For those of you diehards who never read instructions, however, skim through sections I and II before starting a game and save the rest for when you want to get into the more complex aspects of GRIDIRON!.

Overview:

GRIDIRON! is the most comprehensive football game available for a personal computer. We think the more you understand GRIDIRON!, the better you will enjoy it. Yet for all its power, GRIDIRON! was designed to be as simple as possible to use. The keyboard is required only to enter names (for teams, playbooks, and plays) and complete the Validation Sequence. All other interaction is effected by means of the mouse. In GRIDIRON!, the mouse controls a cross hatch pointer ["+"] that is used in selecting options and players. All Screen Menus have selection boxes. Simply point and click inside the appropriate box to invoke the desired option.

GRIDIRON! has been made as realistic as possible to give you the feeling that you are playing an actual football game:

- o Each of the 22 players moves independently.
- o Each play is executed in real-time with the program residing entirely in RAM. At the advanced and Pro levels, the action will tax even the most proficient of players.
- o You can set individual Player characteristics [Speed, Strength] for each of the Players on both teams; offense and defense. You control the action as it is taking place.
- o On offense you control the ball carrier; on defense you control any Player you choose. With a DataDisc of NFL teams, you can even run game simulations of various teams against on another!
- o Player movements emulate the realities of the playing field. Players must accelerate to achieve full speed. A Player cannot change direction instantly since he has momentum. When Players collide, they react according to their angle(s) of collision.

GRIDIRON! is a game of TACKLE football. If the ball carrier is stronger than the defender who is tackling him, he is not necessarily going to go down. The runner's strength will be reduced, and his momentum and direction affected by the collision, but he will keep running. A runner may be able to break a tackle that is just a glancing blow, while a solid hit will usually bring him down. The ball carrier may even pick up

an extra yard as he falls. You can fake a defender to make him miss a tackle, or try to run him down to pick up the extra yard. The decision is yours.

Background Notes:

We have tried to make GRIDIRON! as realistic as possible by recreating the actual "feel" of playing a football game. We have achieved this by invoking a small number of purposeful conventions.

In order to best view all the action taking place, the perspective is directly above the playing field. After careful study, we decided not to "scroll" the screen when the action moves out of the immediate (screen) area. Instead, the action "freezes" for a period of one second while a new playfield is drawn. In this way, you are given the time to adjust to your previous position on the playing field and continue the play, yet you are provided with a more complete picture of the overall playing area. Although this may take some getting used to, we believe you will find it much less obtrusive than continually scrolling a small section of the screen into view. We have kept the graphics simple for the same reason. Playability is paramount.

I. HOW TO GET STARTED

After you have entered the validation code, your validation screen will be replaced by the Setup Menu. A single red cross hatch pointer will appear on the screen. If you choose a one player game, the pointer will stay red. If you select a two users game, the pointer colors will be red and blue (one pointer color for each player). Remember your pointer color! Only your pointer color will control your team. Pointers are used to select options on the screen as well as direct game play.

In all menus, there will be boxes already "filled". These are the default values. If you are satisfied with the default values, simply select the "Continue" box to go on to the next screen. If you want to change a default setting, place your pointer over the box and click once on the mouse to select it. The chosen box will now "fill" to demonstrate that the computer has set the value as indicated.

There is a special window that occasionally appears in the center of the screen called the "Message Window". This window displays pertinent information to the user during the game such as: "First Down", "Safety", "Touchback", "Touchdown", etc. Sometimes the Message Window will request you to input information as well. If the window asks for something to be "entered", the keyboard must be used. To select an option in the Message Window, use the mouse by clicking on the appropriate text. If a valid selection has been made, the Message Window will disappear.

Menu selections are made by one mouse at a time. The computer will only allow one cursor on the screen while a menu is present.

That cursor's mouse must be used to make the selection. [When necessary, messages on the screen will indicate which user should make the selection.]

1. SETTING THE NUMBER OF USERS/LENGTH OF GAME

SINGLE USER MODE:

The opening screen has a default setting for single user play. Set the time of the quarters as desired. The default value is for 15 minute quarters. You will have control over the Gold Team and your pointer will be red in color. The computer will automatically assume control of the Black Team.

DUAL USER MODE:

In dual user mode, select "2 Player" after the opening screen. The default value is for 15 minute quarters. When the play field comes up, each player will have either a red or blue pointer. The Gold Team is controlled by the red pointer, the Black team is controlled by the blue pointer.

You will need an additional mouse or eight position joystick to play in dual user mode. A mouse is the ideal second controller since an eight position joystick does not provide you with as much control over the players. A joystick interface has been included for your convenience, but for those who use a joystick, however, there are important differences in game play:

1. Menus - Limited menu options are available to the player using a joystick. Cursor color reveals which user should select menu options.

2. Swapping Controllers - Due to the limited control offered by an eight position joystick, only the defensive teams are controlled by the joystick. Users are instructed to swap the mouse and joystick after a change of possession.

NOTES ON GAME LENGTH:

A game that is 5 minutes per quarter can usually be played in less than 45 minutes. A game this short, however, will not allow as many possessions per team. This creates a somewhat unrealistic game as scoring on each possession becomes much more important than with longer quarters.

Games of 10 or 15 minutes per quarter are more realistic in terms of long term strategy. Even playing with 15 minute quarters, the longest games rarely last more than 2 hours.

2. SETTING THE DIFFICULTY LEVEL

The main differences in levels of difficulty involve speed, strength and intelligence of play.

* Practice Level

The Practice level operates in single user mode only. It has been designed to allow you to practice the coordinated movements necessary to play at more advanced levels.

The user is always on offense while the computer plays defense. The reason for this is that controlling the defense is much simpler than controlling the offense, and it is important that you be able to practice the Quarterback plays and handoffs without worrying about your QB being sacked.

The defense will not move until the ball has passed, or the ball carrier has crossed the line of scrimmage. This will give you the time to learn how to handoff, lateral, and pass, as well as to discover the variety of plays in the playbook, without the distraction of worrying about the position of the defenders.

The Practice Level runs at the slowest playing speed.

* Beginner

Unlike the built in "protection" of the Practice level, at the Beginner level the opposing team begins to move as soon as the ball is snapped. Your Quarterback will have to execute his play before getting sacked by the opposition.

The beginner level can be played with one or two users and follows the normal structure of a football game.

On single user mode, the computer chooses from a few easy defenses in order to allow you to develop the necessary proficiency to move up to higher levels of game play.

Beginner level runs at the slowest playing speed.

* Intermediate

In single user mode, at the Intermediate Level, the computer Quarterback begins to make intelligent choices of defenses to use against you. You will face a stronger opposing team as well.

The Intermediate Level runs at medium speed.

* Advanced

At the Advanced level, you face the semi-pro team. These Players are tougher and faster than those you have faced before.

At the speed of the Advanced level, you need to have nerves of steel. You will be forced to make split second decisions to stay one step ahead of the lightning fast opposition.

* Pro

If you decide to play at this level, we suggest you have a number of games under your belt at the lower levels or else you are going to get "creamed". If you decide you want to try anyway, go ahead but don't say you weren't warned...

In single user mode, the Pro Level delivers the greatest challenge of any level. Players move at the high speed of the Advanced Level, but the computer's players have the advantage in strength and speed. Only superior strategy and extraordinary skill will lend your team to victory.

In dual user mode, the defenders on both teams are enhanced, making scoring at the Pro level more difficult than the lower levels.

3. SELECTING PLAYBOOKS & TEAMS

The default playbooks and teams are loaded with the program and data during the initial disk bootup. To play the game with the standard playbook and standard team, select the "Continue" box.

Before loading a custom playbook or team, insert a disk containing the playbook/team into the internal drive.

Note: If you attempt to load a Playbook from a disk that does not contain a playbook, you will be returned to the "Playbook and Team Selection" screen.

* Loading a Custom Playbook

If the "Load Custom Playbook" option is selected with a valid data disk in the internal drive, a two column menu will appear on the screen listing the names of all the Playbooks on that disk. You can store up to a maximum of 28 Playbooks per disk.

Selecting a Playbook will cause it to load automatically. In order to return to the main menu sequence, a Playbook must be selected.

* Draft New Team - See GRIDIRON! Player Draft, Chapter IV

* Loading a Custom Team

Same procedure as above in "Loading a Custom Playbook".

4. Randomizing Play Numbers

In Dual User Mode, after a user has selected his playbook and team, the following will appear:

Setting Up Play Numbers

- o Use Standard Order
- o Random Play Order

Selecting the first option keeps the playbook numbered in order from 0 to 19. The second option will bring up the following choices:

- o Copy Off Screen
- o Print New Play Numbers

The first option lists the forty play names (twenty per screen)

and their new numbers on the screen for the user to copy.

The second option prints out a hardcopy version of the play names and their new numbers. The output is generic and will work with any kind of printer.

Note: In a Playbook, offensive and defensive plays share common numbers. [Example: "Screen Left" (Offense) and "34 Defense" share the number, "12"]

II. HOW TO PLAY

1. KICKOFFS

When the kickoff is to take place, the teams will automatically line up in kickoff formation. The Message Window will appear with the message "Press button to kick". The user controlling the kicking team must decide whether to kickoff normally or to try an onside kick.

If the kicking team's cursor is on its own side of the 50 yard line when the mouse button is pressed to kick the ball, the ensuing kick will be an onside kick. If the cursor is anywhere on the receiving team's side of the 50 yard line a normal kickoff will take place.

Note: In Single User Mode, User 1 must press his mouse button to kickoff. When the computer kicks off, the cursor has no effect on what kind of kickoff will take place.

2. PLAY SELECTION BOXES:

The Play Selection boxes in the upper left (and upper right) corner(s) are used to select plays. The play number is represented by the two digits in the boxes. Above and below the digits are boxes containing arrows. To increase the value of a digit, move the pointer into the box above the digit ("up" arrow), and click the mouse button. To decrease the value of the digit, click on the "down" arrow box. Each click of the mouse increase (or decreases) the digit by one. The digits "wrap around," in that increasing the value of the right digit from "9" will result in a "0".

Once you have set the play numbers to the desired play, you must select the play using the Select Box (marked "SEL").

Important: The play will NOT be selected if you do not point and click inside the Select Box.

OFFENSE:

On offense, you must wait 10 seconds before selecting a play. [This delay allows the defense time to set up.] Until the "Thirty Second Clock" reaches 19 seconds or below, the "SElect" box will be inactive. Once the clock has reached 19 seconds, however, you can then SElect your choice of play.

Once you have selected your offensive play, the scoreboard will

disappear, and the offensive and defensive players will appear in proper formation.

The Offensive Play Selection Boxes have a "HIke" box on the far right. When this box is clicked, both the offensive and defensive selection boxes disappear, as does the 30-second clock. There is a 2 second delay before the ball is hiked. During this time, the pointer may be moved into position for the upcoming action.

In Dual User mode only: The ball should not be hiked until at least one second after the last offensive play has been selected, otherwise an "Illegal Procedure" penalty will be called. This has been incorporated in GRIDIRON! to allow the defense time to respond to changes in offensive plays.

DEFENSE:

Unlike offense, a defensive play can be chose as soon as the Play Selection Boxes appear. Although your team formation may not appear for a number of seconds, your choice is nevertheless registered by the computer and will be reflected as soon as the offensive play has been selected by your opponent.

Offensive and defensive plays can be changed until the ball is hiked, by using the SElect Box ("Calling an Audible"). [See Section 5, Selecting Defender Control]

Notes: When using a joystick as a second controller, the defensive cursor will only appear in 7 places (boxes) on the screen: the Official Timeout Box, the Team Timeout Box, the four arrow boxes, and the SElect Box. This will allow the defender to call his plays and timeout with the joystick. Move the joystick back and forth and/or up and down to position the cursor in the desired box.

When a play has been completed, the field is redrawn, the scoreboard reappears in the upper middle of the screen, and the Play Selection Boxes reappear in the upper corner(s) of the screen.

In single player mode, the computer's Play Selection Boxes do not appear.

In Dual User mode only: The ball should not be hiked until at least one second after the last offensive play has been selected, otherwise an "Illegal Procedure" penalty will be called. This has been incorporated in GRIDIRON! to allow the defense time to respond to changes in offensive plays.

Two Minute Warnings: There are two occurrences of the Two Minute Warning; when there are two minutes remaining in the second and fourth quarters respectively.

Team Timeouts: To call a Timeout, the user should place his pointer in his team's Timeout Box and click the mouse button. The Timeout Boxes are located in the Scoreboard window. Each team is allowed three Team Timeouts per half.

Official Timeouts: Official Timeouts may be called by either user. They should be used as a game pause function for those times when the user needs to: answer the telephone, run to the fridge, or generally deal with reality. Official Timeouts should NOT be used as an excuse to give you more time to consider your strategy. To call an Official Timeout, either user may move his pointer into the Thirty Second Clock (located in the bottom center of the screen) and click the mouse button.

Upon entering a timeout, the following screen will appear:

- o Play Creation Utility - User 1
- o Play Creation Utility - User 2
- o View Team Stats
- o Return to Game

Note: In Single User Mode, the Play Creation Utility option for User 2 will not appear.

At this point, the user who called the Timeout must choose which option to exercise:

Play Creation Utility - see Chapter V

View Team Stats - Choosing this option, allows a user(s) to compare current statistics for each team. These statistics also appear at the end of each quarter. Two notes on the Team Stats screen:

- a. The QB Stats line has three numbers (separated by hyphens) for each team's quarterback. The first number is the number of pass completions, the second number is pass attempts, and the third number is interceptions.
- b. The Punt line has two numbers (separated by a slash) for each team's punter. The first number is the number of times that team has punted the ball and the second number is the average yards per punt.

4. OFFENSE

The mouse controls one player per team. When the ball is in play, the player being controlled chases his respective pointer, allowing the user to make the player go in any direction.

On offense, the mouse controls the ball carrier. If the ball is transferred to another player by means (hand-off, pitch, or pass), the mouse will take control of that player as soon as he has possession of the ball.

All eligible receivers are indicated by a "stripe" on their uniform. This feature has been provided to make receivers more visible during pass plays.

As long as the ball has not crossed the line of scrimmage or been passed forward, all computer controlled players continue to execute their pre-programmed commands ["Backfield Mode"].

IMPORTANT: When in Backfield Mode, the ball carrier will stop all movement as long as the left mouse button is pushed down. This feature is important to the execution of hand-offs, passes, punts, and kicks.

An additional mode of importance is: "Open Field Mode". There are times in most plays when each player's pre-programmed commands are no longer useful. Open Field Mode has been designed to handle many of these situations. In Open Field Mode, the computer commands all teammates of the ball carrier to block and all opponents to pursue the ball. Open Field Mode occurs in the following situations:

- 1) When a punt, kick or forward pass has been caught.
- 2) After an interception.
- 3) When the ball carrier crosses the line of scrimmage.

RUNNING PLAYS

Plays 0-9 in the Playbook are programmed as running plays. These plays normally involve either a handoff or a pitch to another player. Remember, however, that you control the action. If you want to avoid handing-off, pitching, or passing, just have the Quarterback run with the ball on any of the offensive plays.

Hand-Offs

Hand-Offs are one of the more difficult aspects of playing GRIDIRON!. The technique takes practice to master but is worth the effort. Handing-off to the running backs will improve your chances of gaining yardage as running backs are usually faster than your Quarterback and will not be tackled as easily by defenders.

To execute a hand-off, the ball carrier is moved close to the player who has been designated to receive the hand-off and depress the left mouse button to transfer the ball. If the players are within range while the mouse button is pressed, the ball will be transferred; if not, the ball carrier will hang on to the ball, and remain stationary until the left mouse button is released. [See Tips, below]

Remember that as soon as the ball has been handed off, the mouse button should be raised and the pointer placed so that the new ball carrier will run in the proper direction.

IMPORTANT: A hand-off can only be given to the player programmed to receive it. Any attempt to hand-off to other players will be ignored by the computer.

TIPS:

1) DO NOT run the quarterback into the player receiving the hand-off! Even the slightest delay caused by the collision can reduce yardage gained by the play. With practice, you will be able to determine just how close the two players must be in order to hand-off successfully.

2) Estimate the path of the running back, position the ball

carrier near the path and press the mouse button. While waiting for the running back to come within range, move the pointer in the direction you want the running back to move when he assumes possession of the ball.

3) Immediately after the running back comes into hand-off range, (and the ball is transferred), lift up on the mouse button. Remember that the ball carrier will be stopped for as long as the mouse button is held! If you have positioned the pointer to where you want the running back to go, he will move in that direction without hesitation.

Use Practice level to develop your hand-off technique.

PASSING PLAYS

Passing has always been one of the most exciting aspects of football, and GRIDIRON! allows you to experience a very realistic passing game. Successful execution of a pass requires that you observe the following steps:

- 1) The quarterback should drop back 5-10 yards.
- 2) The quarterback should set up for the pass, or roll out to avoid the rush, depending on the play and the defense. To set up for a pass, hold down on the mouse button to stop the Quarterback and allow free movement of the pointer.
- 3) The time that it should take your Quarterback to get into a position to pass should be enough time for you to see how the well defense is covering your receivers. Estimate how much time your quarterback has before being sacked by the rush and the scan for the most open receiver.
- 4) Move your pointer to a spot on the field that will allow your receiver to catch the ball without any defenders having time to get to the ball and break up the pass. Once the pointer is in position, lift up on the mouse button. The ball will immediately be thrown toward that spot. The computer calculates which receiver has the best change of catching the pass, and automatically adjust the path of that receiver to be at the correct place at the correct time.

Experience and a good sense of timing will help you develop the judgement necessary to throw a successful pass.

TIPS:

When choosing where to throw the ball, take into account that your receivers have momentum and a maximum speed. Just as in real football, when you pass don't forget to "lead" your receiver.

If a rusher is in the process of sacking the Quarterback as the ball is thrown and the quarterback is not yet down, the pass will be thrown wild in the same general direction as the pointer. Be careful! This is an open invitation for an interception!

Whenever a player catches the ball (defender or receiver), mouse

control is transferred immediately to that player.

When the ball arrives to where it has been thrown, the computer checks to see which players are close enough to catch the pass. At this point, there are three possible outcomes:

- 1) A Completed Pass: Occurs when only a receiver is close enough to catch the ball. All players will enter Open Field Mode.
- 2) An Interception: Occurs when only a defender is close enough to catch the ball. All players will enter Open Field Mode.
- 3) An Incomplete Pass: Occurs when both the receiver and defender are close to the ball, or if no player is close enough to catch the ball.

NOTE: If a player is in a position to catch the ball, a member of the opposite team does not always have to be close enough to catch the ball himself to stop the completion. The ball could still be knocked down if he is on the side of the receiver from where the pass was thrown and in close proximity to the ball.

PUNTING:

In GRIDIRON!, the technique of punting is similar to passing. When the punter receives the ball, he acts as a normal runner until the mouse button is pushed. While the mouse button is held down the user can direct the pointer to where the ball is to be kicked. When the mouse button is released, the punter will punt the ball toward that point. It should be noted that punts are far less precise than passes.

When the ball has been punted the following occurs:

- 1) The computer determines which defender is closest to the punt's destination and will move that defender into position to catch the ball. If the chosen defender is being controlled by the mouse, the computer will override the mouse and move him into position. Once the ball is caught, mouse control is resumed.
- 2) The 10 defenders who are not going to return the punt will drop back to block.
- 3) The offensive players will begin to run downfield to pursue the ball.

Additional Points:

If the ball lands on the ground, all 22 players will run toward it.

If a player from the punting team recovers it, the ball is downed there.

If a player from the receiving team recovers the ball, all players enter Open Field Mode.

5. DEFENSE

Playing defense is much easier than playing offense. The only thing that defensive user has to do is move his mouse-controlled player to those areas on the field that will best strengthen his defense. In other words, you are the back-up man who is in a position to act quickly upon any potential weakness in your defense or your opponent's offense.

Selecting Defender Control

After the offensive play has been selected, the offensive and defensive formations appear on the screen. At this time the defensive user should decide which player he wishes to control, and place his pointer over that player. During the two seconds before the ball is snapped, (during the time the quarterback can be heard calling the count), the defensive user can select who he wants control by pressing the mouse button while his pointer is over the chosen player. A white diamond will appear on that player as soon as the button is pressed indicating that control has been transferred to that player. If no player is chosen within this time period, the computer will choose one for you.

Note: When using a joystick as a second controller, the defender must use the joystick button to select which player he will control. Each time the joystick button is pressed during the allotted two second time period, the white diamond will appear on a new player. When play execution starts, the player with the white diamond on him will be controlled by the joystick.

III. STRATEGY

1. OFFENSE

The strategy of GRIDIRON! is very much like real football. When calling offensive plays, try to call plays that suit the situation (i.e. don't call a Quarterback Sneak on 2nd and 10 to go). At the same time, try not to be too predictable. Look for defensive patterns and try to find weaknesses.

The passing game can seem more exciting than the running game and, if successful, can gain large chunks of yardage in a very short time. The team that will succeed against difficult opponents, however, is the team that balances running with passing. By selecting a mix of running and passing plays, you will have a better chance of fooling the defense and gaining more yardage.

Practice and experience make the difference on offense. Perfecting handoffs and pitches will add an enormous punch to your running game. Use the Practice level to practice execution of all the plays.

Notes on each of the offensive plays in the Standard Playbook follow:

* Quarterback Sneak - This play will gain you very little ground,

but can be effective in short yardage situations.

- * Fullback Blast - This probably won't get more than a couple of yards, but is effective because the fullback reaches the line of scrimmage so quickly.

- * 42 Run - The time it takes the halfback to get the ball usually allows the user to spot a hole. This play is not effective against a 6 man defensive line. If the halfback can get through the defensive lineman, this play can be a big gainer.

- * Fullback Trap - This is a tricky play. The trap blocking usually opens a hole for the fullback, but the delay in the development of the action can be disastrous if the defense is blitzing.

- * Sweep Left - This is an easy play to run. The fullback is normally not very fast, so this play is more effective if the fullback does not swing out too wide before heading upfield.

- * Sweep Right - If the halfback has good speed and gets some running room, this play can gain you good yardage.

- * Pitch Left - Without a doubt, this is the most dangerous running play of all. If the defense isn't ready for it, this play will make big yardage, but if the defense is ready for it, this play can result in a fumbled lateral.

- * Pitch Right - Again, there is the danger of a fumbled lateral, but the fullback is hard to bring down if he gets outside.

- * Reverse - This is a very tricky play to execute well. Do not try this one too often; wait until the defense can be fooled. This play can result in large gains, or large losses.

- * Fullback Draw - This is another tricky play. Generally, a Fullback Draw will only work against pass defenses.

- * 31 Pass - This play can take a long time to develop, but be patient. If the Fullback makes it through the defensive line, he should be wide open over the middle.

- * Halfback Option - This is a useful play which requires very quick decision-making. Look for the Quarterback to be wide open or lots of running room on the outside.

- * Screen Left - Don't wait too long to throw the pass or your blockers will cross the line of scrimmage. This play may not gain a lot of yardage but is usually good for at least a few yards.

- * Screen Right - Similar to Screen Left.

- * Flood Pass - You have five receivers going out on this one but you also have less blockers. There should be someone open, so pass quickly or you're going to get sacked.

- * Halfback Fly - The success of this pass will vary greatly depending upon your defensive coverage. If your halfback is

open, however, you can make very big yardage on this play.

- * Cutback Pass - This play is not designed to gain more than five or six yards but has a better chance of completion. Throwing to a receiver after he has cut back toward the Quarterback makes a successful pass easier to throw.

- * Hail Mary - This is a desperation pass when you need long yardage in a hurry. Chances of a completion are slim but cross your fingers, throw the ball and maybe you'll get lucky...

- * Punt - Careful placement can sometimes place your opponent in bad situations. Kick it out of bounds or try to get the opposition to catch the ball deep in their own territory!

- * Field Goals - If the ball is outside your opponent's 35, kicking a field goal is difficult. This depends, of course, upon your team's kick rating.

2. DEFENSE

Defensive Plays 0-9 are primarily run defenses, 13-18 are pass defenses, and 10-12 are a balance of the two.

In general, it is far safer to rely upon pass defenses as you are going to give up far less yardage to a run on a pass defense than you would to a pass on a run defense. Just one good pass by your opponent can lose you the game. Nevertheless, throwing a few odd defenses to keep your opponent guessing wouldn't hurt.

In situations where you are not sure what the offense will do, it's good to control one of the safety men to limit his yardage. If you think you know what play he is going to call, however, control the defensive position you think will cause the most damage to his play.

- * Goal Line Defense - Very good in short yardage situations but if the opposition gets much past the line of scrimmage, you will have a tough time stopping them from going all the way.

- * 61 Defense - This play is also good in short yardage situations, but is less likely to allow big gains.

- * Spread 61 Defense - Use this defense in situations when you think the offense will run but you are not sure when.

- * 61 Stunt Defense - This defense give the impression you are going to protect against a run up the middle when you are really protecting against a run to the outside.

- * Shift Left - This play is very effective against runs or short passes to your left side. If the offense runs to your right, however, you could be in trouble.

- * Shift Right - Similar to Shift Left, opposite side.

- * Left LB Blitz - Blitzing the extra man can really break up an

offensive play. But don't use this play too often as you can get nailed badly if he calls a good pass against you.

- * Right LB Blitz - Similar to a Left LB Blitz, other side.

- * Double LB Blitz - Twice the blitz and twice the risk.

- * Full Blitz - This is a very dangerous defense. Great against runs up the middle and sweeps, but can be disastrous against pitches and passes. Also a good way to shake up an inexperienced Quarterback.

- * 43 Defense - A non-committal, balanced defense. Use when you don't know what to expect from the offense.

- * Spread 43 Defense - This defense is particularly effective against short passes, pitches and sweeps. This is the best defense to use against a pitch play.

- * 34 Defense - This is good when you think the offense is going to to run the outside or pass.

- * 61 Pass Defense - This defense may lead the offense to believe you are defending against a run while you are actually set up in a pass defense. This is not the most effective pass defense, however.

- * Short Zone - Probably the best overall pass coverage against a short to medium length pass.

- * 5 Man Coverage - Primarily a man-to-man coverage situation. Effective against passes to the flanker and the two ends, it still allows six men to cover against a running play. The weakness of this play is that it will not work well against receivers coming out of the backfield.

- * 7 Man Zone - This is a good defense against a deep pass but the formation does not give away your strategy. This play is very poor against the run.

- * 8 Man Zone - Use this play when you are sure the offense will attempt a deep pass.

- * Prevent Defense - Designed to prevent the offense from gaining large amounts of yardage in short periods of time. Because it is not difficult to get first down yardage against this defense, use it only when the offense has little more time left in the half, or they have to get fifteen yards or more in the play.

- * Punt Return - Do not use this play unless the offense is in punt formation.

IV. GRIDIRON PLAYER DRAFT

As in real football, each user may want to match the talent of his players in his game strategy. [In other words, if you prefer a passing game, you will want talented receivers, etc...] In GRIDIRON! you do this using "PAPs" [Player Ability Points]. Changing PAPs allows you to modify the characteristics of each

player. Before modifying a team, opponents must agree to a total number of PAPs they are allow to use in constructing their teams. The total PAPs will correspond directly to the overall capability of their respective team.

Upon selecting the "Player Draft" option, a new screen will appear listing the offensive positions and individual characteristics for each player [speed & strength]. Each player's speed and strength are rated on a scale from 0 to 20, where 20 is the best. A rating of 0 means the player has minimal ability. These characteristics reflect the team presently in memory, whether the team is the standard team, or one previously loaded off disk.

Selecting the "Goto Defense" box will replace the offensive positions with the defensive positions and their characteristics. [The "Goto Defense" box then becomes the "Goto Offense" box.] Note that the Kicker Rating remains on the screen independent of whether the offense or defense is being displayed.

Note: Total PAPs remain in the lower left side of the screen and automatically update as player characteristics are changed.

m1. MODIFYING PLAYER CHARACTERISTICS

Use the pointer to change player characteristics in the following way:

To increase a PAP number, place the pointer over the top half of the number and press the mouse button.

To decrease a PAP number, place the pointer over the bottom half of the number and press the mouse button.

While keeping track of Total PAPs, the computer adds up all the points on both screens for speed and strength. Because key offensive players have more impact on the game, their speed and strength are multiplied by the following factors before being added to the total:

-Left End	X 3	-Right End	X 3
-Quarterback	X 4	-Fullback	X 4
-Halfback	X 4	-Flanker	X 3
-Kick Rating	X 5	[includes punter and place kicker]	

2. EFFECTS OF SPEED AND STRENGTH

When adjusting the characteristics of one's players, it is important to know how those changes may affect game play.

SPEED:

Although actual speed is dependent upon play level, relative speed is dependent upon Player Ability Points [PAPs]. A player with more PAPs in the speed category will always be faster than another player with less PAPs, regardless of level.

STRENGTH:

Strength of a player is important in tackling and blocking:

A strong ball carrier will be brought down much less quickly (if at all) by a weak defender than will a weak ball carrier by a strong defender.

A weak defender will be able to get past a strong blocker much less quickly than will a strong defender against a weak blocker.

In collisions, both speed and strength play an important factor. The faster and stronger the player, the more dramatically he will affect the path and speed of the person with whom he collides.

Note: The Gridiron Player Draft is a very good way of handicapping between users of different experience.

3. SAVING TEAM CHARACTERISTICS

- o Save Team on Data Disc
- o Initialize a Data Disc

- o Continue

When all the modifications have been made, select the "Exit Player Draft" box. The computer will ask if the team should be saved on disk. If the team is to be saved, insert a data disk into the internal drive. The computer will ask for a team name and a suffix to be entered via the keyboard. The team name will be used on the scoreboard whenever that team is loaded from disk. The suffix is used to differentiate between different teams with the same name (i.e. 'REDSKINS.84' AND 'REDSKINS.85').

V. PLAY CREATION UTILITY (PCU)

One of the most unique and powerful features of GRIDIRON! is the ability to modify plays during a game and save those modifications on disk. Although it is not very difficult to modify plays using the PCU, a good working knowledge of how the players interpret the commands is recommended highly. The difference between a successful play and a disaster can be as little as one player's programming, so be prepared to spend enough time to "fine tune" plays after making substantial modifications.

1. ENTERING THE PCU

The only way to enter the PCU is by calling a timeout during the game. This allows the user to test his plays immediately and "fine tune" his programming.. If you want to create plays that are particularly effective against certain defenses, initialize the game for two users. This will allow you to test your play against whichever defense or offense you choose. [In Single User Mode, the computer decides the opposing play.]

2. PCU OPTIONS MENU

- o Modify Offensive Play
- o Modify Defensive Play

- o Save Playbook on Data Disc
- o Initialize a Data Disc

- o Exit PCU

The PCU Options Menu is the first and last screen you will see when entering and exiting the PCU.

*** Modifying Plays - (Offensive/Defensive)**

When a user enters the PCU, he must choose which type of play to modify [offensive or defensive]. The screen will then list a menu of the 20 plays of that type. To select an individual play, click the box to the left of its name.

*** Save Playbook -** This function allows the user to save his entire playbook to disk.

*** Initialize a Data Disc -** In order to save your programmed plays, you must use an initialized disk. Place the intended disk in the internal drive and invoke this option to initialize a disk.

*** Exit PCU -** Returns you to the Timeout menu.

3. PCU MAIN MENU

Upon selecting a play, a graphic display of the play's formation will appear on the screen along with the PCU Main Menu. The following menu options will appear:

*** Change Name -** The user can pick any name up to 14 characters long.

*** Set Formation -** Select a player by using the pointer. The player will turn white. Clicking on the mouse again will place the player on the field, whereupon his original color will return.

The computer will not allow the user to place a player in a position breaking any of the following rules:

- 1) Players cannot touch
- 2) Players cannot be positioned offsides.
- 3) Players must be positioned within the field area provided by the PCU.

*** Edit Player -** This function allows the user to change a player's commands. The player is selected using the pointer.

*** Save Play -** Will enter the modifications that have been made to a play into the current playbook in memory. This function will NOT put the play onto disk. If this function is not used, any

modifications made during the session will be lost.

* New Play - Selecting this box will exit the user from the PCU Main Menu. At this point the user can select a new play or exit the PCU.

4. MODIFYING PLAYER COMMANDS

When editing a player:

- 1) The player will turn white.
- 2) The Command Display Window will appear in the upper right corner of the screen.
- 3) One of the two editing menus will replace the PCU Main Menu on the left side of the screen.

A. mEdit Offensive Player [EOP] Menu

The EOP Menu is used whenever an offensive player's commands are edited.

Save Play function has not been used, exiting the PCU Main Menu will erase all modifications to a play! In addition, you must invoke the "Save Playbook" option prior to exiting the PCU if you want to save your session to disc.

* Run Block - When selected, a Message Window will appear to ask the user if the player should block left or right.

* Pass Block - This command differs from Run Blocking in that the player will not move forward to block, only backwards and laterally. This guarantees that pass blockers will not cross the line of scrimmage during a pass play.

* Delay - Once selected, the Message Window will appear to allow selection of the number of counts the player will delay. [One count equals approximately one second].

* Run To - When selected, the user must place the pointer on the field area and press the mouse button. A line will be drawn to that point, marking the path that the player will attempt to follow.

* Hand Off - Once selected, the Message Window will appear asking to whom the ball should be handed off. In play, the ball can only be handed to the player who has been selected.

* Pass - A pass can be thrown to any eligible receiver as long as the ball carrier is: (1) behind the line of scrimmage and (2) there have been no forwarded passes made previously during that play.

* Punt - The chosen player will punt the ball when commanded via the mouse.

* Kick - The player will kick a place kick when commanded via the

mouse.

- * Erase Commands - All commands for that player will be erased.

- * Exit Menu - Return to the PCU Main Menu. All changes will be retained.

B. Edit Defensive Player [EDP] Menu

The EDP Menu is used whenever a defensive player's commands are edited.

- * Pursue - The defender will pursue and attempt to tackle the ball carrier.

- * Lateral Pursuit - The defender will follow the ball back and forth across the field, but will not run up and down the field. Once the ball is away from the clutter of lineman in the center, the player will pursue the ball carrier normally. This command is effective against offensive plays to the outside. Save Play function has not been used, exiting the PCU Main Menu will

erase all modifications to a play! In addition, you must invoke the "Save Playbook" option prior to exiting the PCU if you want to save your session to disc.

- * Delay - Same as EOP Menu.

- * Run To - Same as EOP Menu.

- * Cover Receiver - Once Selected, the Message Window will request which coverage to use. The choices are man-to-man on any receiver or zone coverage. If zone coverage is selected, the Message Window will list the five zones a defender can cover. One of the five zones must then be selected.

- * Erase Commands - same as EOP Menu.

- * Exit Menu - same as EOP Menu.

5. SELECTING COMMAND SEQUENCES

There are programmable commands which the player can complete, and commands which go on indefinitely.

Completable Commands

- * Delay
- * Run To
- * Hand Off
- * Pass
- * [Punt]
- * Kick

Non-Completable Commands

- * Run Block
- * Pass Block
- * Pursue
- * Lateral Pursuit
- * Cover Receiver

All non-completable commands continue until the end of the play, or until they are replaced automatically by the computer. If the computer reprograms the players, the original commands will not

be used for the remainder of the play.

When creating a command sequence, (there is a three command limit.), for a player to execute, it must be remembered that the player will automatically move to the next command upon the completion of the former command. For this reason, exercise care in the sequencing of commands. For example, a Pass Block followed by a Run To command does not make sense - the player would not recognize the end of his Pass Block assignment and therefore would never execute the Run To command. The reverse order would work, however. The player would Run To the programmed location and then begin his Pass Blocking assignment.

Note on Punts: As the computer reprograms all players when a Punt has taken place, no user-programmed command can be executed after a punt. For this reason, the punt cannot be considered a truly completable command.

Automatic Command Modes:

Save Play function has not been used, exiting the PCU Main Menu will erase all modifications to a play! In addition, you must invoke the "Save Playbook" option prior to exiting the PCU if you want to save your session to disc.

The commands that you program in a given play are only executed during Backfield Mode. These commands determine the initial development of the play. At key points during play execution, it is no longer beneficial for the players to continue executing their original commands. At these times, GRIDIRON! enters different modes of play that override the Backfield Mode. This occurs in the following situations.

- 1) Pass Mode: When a pass is thrown, defenders are programmed to break off their coverage and Run To [Ref. Chapter V, Sec. 4A] where the ball is being passed.
- 2) Open Field Mode: All offensive players (except the ball carrier) are programmed to block. All defenders are programmed to pursue the ball. [Ref. Chapter II, Sec. 4]
- 3) Punt Mode: This mode occurs while a kick-off or punt is in the air. Kicking team players run downfield and receiving team members drop back and block. [Ref. Chapter II, Sec. 4]
- 4) Loose Ball Mode: Whenever the ball is on the ground and no player has possession, all players who are not programmed for lateral pursuit or pass coverage will run toward the ball.

REVIEWING A GAME USING A VCR:

If you want to analyze a particular game of GRIDIRON!, you can hook up to a VCR (Videocassette Recorder) to the VIDEO output of your computer and into the VIDEO Input of the VCR. If you want

audio as well, attach the AUDIO OUT channels to the AUDIO IN of your VCR. Using this method you will be able to record any portion of the game. If you have a sophisticated unit with speed control, you can even simulate a slo-mo (slow motion) effect, to carefully analyze plays.

Typed By The Cure
